

## ABSTRACT

A switching circuit includes at least one switch, and a controller configured to provide a periodic control signal. The switch is responsive to the periodic control signal to change states with a start of each period, and a frequency of the periodic control signal has a predetermined minimum frequency level greater than an audible frequency limit for humans. The switching circuit may be used to control a high side switch and a low side switch in a DC to DC converter. A controller having an input voltage sensing circuit to sense an input of a DC to DC converter without using an additional input pin is also provided. Related methods are also provided. A dual phase controller having a phase selection circuit to select between phases is also provided.